



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO24324

Purchase Order Date 5/23/2014

PO Print Date 5/23/2014

Page Number 1 of 1

Order From :
AIR DYNAMICS
19420B CLARK GRAHAM AVENUE
BAIE D'URFE, QUEBEC H9X 3R8

VC-AD001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

6/4/05/23

Contact Name
Vendor Phone 514-457-4287

Ship To Contact
Ship To Phone
Ship Via: FedEx PI collect
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

| Line Nbr | Reference Vendor Part Number Line Comments Delivery Comments | Description/ Mfg ID | Req Date/ Taxable Promise Date | CD | Req Qty/ Unit of Measure | PO Unit Price | Extended Price |
|--|--|----------------------------|--------------------------------------|----|--------------------------------|---------------|----------------|
| 1 | 71400-11 | 515.349 PRIMER GAL. KIT | 6/13/2014 Yes 6/13/2014 | | 4.00 Each | \$415.00 | \$1,660.00 |
| Procurement Quality Clauses A005 RIGHT OF ENTRY A012 CHEMICAL AND PHYSICAL TEST REPORTS A013 SHELF LIFE CONTROLLED MATERIAL; 80% SHELF LIFE REQUIRED AT RECEIPT A026 CERTIFICATION OF MATERIAL CONFORMANCE A041 QUALITY MANAGEMENT SYSTEM A043 RETENTION OF QUALITY DOCUMENTS | | | | | | | |

Line Total: \$1,660.00

Deliver To: ANDY

PO Total: \$1,660.00

CZmk

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1

Change Date: 5/23/2014


Certificate of Conformance/ Certificat de conformité

Packing Slip/Bon de ramassage 58016192 Page: 1 of 2

PPG Aerospace
A Division of PPG Canada Inc
5676 Timberlea Blvd.
Mississauga, ON L4W 4M6
Phone: 905-629-7999

Fax: 905-629-7009

Order Date/ 05/30/14
Date de la Commande:
Cust. No./ TC000104
No. de réf du client:
Terms/ NET45
Termes:
Cust. P.O./ 030579
No. de bon de Commande:
Site: 3738CN

Order No/ S119609 06/13/14
No. de Commande: 12:01:38

CSR:

Remarks/ BRENDA SHEA / TR
Remarques:

Sold To/ TC000104
Vendu à: AIR DYNAMICS COMPANY LIMITED
19420B CLARK GRAHAM AVENUE
BAIE D'URFE, PQ H9X 3R8
CANADA

30579
18 JUN 2014

Ship via/ GOJIT
Expédié par:

Ship To TC000104
Expédié à: AIR DYNAMICS COMPANY LIMITED
19420B CLARK GRAHAM AVENUE
BAIE D'URFE, PQ H9X 3R8
CANADA

| Line/ Ligne | Qty Ordered/ Qté. commandée.UM | Description | Req Date/ Date Requite | Due Date/ Promise Date/ Date Due Date Promise | Qty to Ship/ Qté. Disponible | Qty Picked/ Qté. Livrée |
|--|-----------------------------------|--|---------------------------|--|---------------------------------|----------------------------|
| <p>Quality Requirements: CERTIFICATE OF CONFORMANCE MIN 90% SHELF LIFE REQUIRED, FULL SHELF LIFE PREFERRED, IF LESS ADVISE BUYER BEFORE SHIPPING <i>See alt</i> SEALANT BULK MATERIAL MFD PPG AEROSPACE, PRC-DESOTO INT'L, MOJAVE, CA MASTINOX BULK MATERIAL MFD PPG AEROSPACE, FRANCE MOJAVE BULK CERT REQUIRED RE: LINE 7 TEST REPORT RE: LINE 14 **</p> <p>Labelling Requirements: MANUFACTURE/PACKAGE DATE AND EXPIRY DATE TO APPEAR ON ALL DOCUMENTATION AN LABELS * Shipping Info: PARTIAL SHIPMENT IS ACCEPTABLE SHIP 7+ BOXES VIA GO JIT ACCT #2060881 SHIP 6 BOXES OR LESS VIA DICOM ACCT #0313470</p> | | | | | | |
| 14 | 4 EA | 0515X349XXIKG22K BMS1079/DMS2144/DHMS/VMS 515X349/910X533 GL KIT Customer Item: 515X349 SPEC: DMS 2144 REV E COMP A SPEC: BMS 10-79 REV. P TY III CL A GR A Lot No: 398296 *Location: FRB-19 - 515X349 001 Batch: 350464 - 910X533 001 Batch: 205163 In compliance with the chemical registration laws of CANADA | 06/17/14 | 06/17/14 06/17/14 | 4 | 4 |

Perm: 2/2014
PTE: 2/2015

| | |
|------------------------------------|---------|
| Date Shipped/ Date d'expédition | 6/17/14 |
|------------------------------------|---------|

We certify that this material has been manufactured and tested in accordance with applicable specification(s). Test data pertaining to this material is on file and available for inspection upon request.

2 BOXES

N Maharaj
Niri Maharaj
Quality Control
ASC CANADA
QC5

Receiving Report

Date: 14/6/20

Batch No: M129568

Supplier: AIR DYNAMICS

Dart P/O: 24324

Packing Slip: Yes ☒ No ☐
 Invoice: Yes ☐ No ☒
 Receipt: Cash ☐ Cr ☒
 New Supplier Yes ☐ No ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐
 Waybill Attached: Yes ☐ No ☒ N/A ☐
 Shipment Complete: Yes ☒ No ☐ N/A ☐
 QC18 Inspection ☐ N/A ☒
 Work Order ☐ N/A ☒

Discrepancies

| Part Number | Description | Quantity Ordered | Quantity Rec'd | Quantity Short | Quantity Inspected | Quantity Rejected | Comment / NCR Number |
|-------------|-------------|------------------|----------------|----------------|--------------------|-------------------|----------------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Initials of Receiver

QC12

Production/Admin:

Date _____
 Received/Costing _____
 Initial _____

Location

AM

H:\FORMS\Purchasing\approved purch\RECREPORT Rev F

RELEASE CERTIFICATE

AIR DYNAMICS

19420B Clark Graham Avenue
 Baie d'Urfé, Québec, H9X 3R8
 514-457-4287

AD-1(A)
 GTY:4

NOMENCLATURE PRIMER-GREEN (GALLON KIT)
 PART NUMBER 515X349 MODEL or TYPE
 MAKE PRC-PRG (515X349 BASE - IGL - LOT: 350464)
 SERIAL NUMBER (910X533 ACTINATOR - IGL - LOT: 205163)
 NEW ☒ REPAIRED ☐ INSPECTED ☐ OVERHAULED ☐ MODIFIED ☐
 PREVIOUS CERTIFICATION B-30579 EXP: FEB/2015

I HEREBY CERTIFY THAT THE AIRCRAFT PARTS, APPLIANCES AND/OR MATERIALS DESCRIBED HEREON WERE ACQUIRED FROM A SOURCE OF SUPPLY THAT IS CONSISTANT WITH THE CONDITIONS UNDER WHICH THE DEPARTMENT OF TRANSPORT DISTRIBUTOR APPROVAL NO. 12-89 HAS BEEN GRANTED.

DATE: JUNE 18, 2014

Brenda Shen
 INSPECTOR'S SIGNATURE


Certificate of Conformance/ Certificat de conformité

Packing Slip/Bon de ramassage 58016192 Page: 2 of 2

PPG Aerospace
A Division of PPG Canada Inc
5676 Timberlea Blvd.
Mississauga, ON L4W 4M6
Phone: 905-629-7999

Fax: 905-629-7009

Order Date/ 05/30/14
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Remarks/
Remarques: **BRENDA SHEA / TR**

Sold To/ TC000104
Vendu à: AIR DYNAMICS COMPANY LIMITED
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CANADA

30579

18 JUN 2014

Ship via/ **GOJIT**
Expédié par:

Ship To TC000104
Expédié à: AIR DYNAMICS COMPANY LIMITED
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CANADA

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|----------------|-----------------------------------|--|---------------------------|-----------------------|-------------------------------|---------------------------------|----------------------------|
| 15 | 2 EA | TESTREPORTEAR99 TEST REPORT EAR99 RE: LINE 14 *Location: STOCK | 06/17/14 | 06/17/14 | 06/17/14 | 2 | 2 001232 |

Date Shipped/
Date D'expédition

6/17/14

We certify that this material has been manufactured and tested in accordance with applicable specification(s). Test data pertaining to this material is on file and available for inspection upon request.

N Maharaj
Niri Maharaj

ASC CANADA
QC5

Quality Control



PPG Aerospace
PRC-DeSoto

PRC30579

18 JUN 2014

PRC-DeSoto International, Inc.
11601 United Street
Mojave, California 93501 USA
Telephone (661) 232-6401
Fax (661) 232-6888
www.ppgaerospace.com

TEST REPORT

Page 1 of 1

REFERENCE: BMS 10-79P, Type III, Class A, Grade A

This is to certify that the material described herein meets or exceeds the test requirements of the referenced specification and that all tests have been performed in accordance to the specification.

URETHANE COMPATIBLE CORROSION RESISTANT PRIMER

BASE: 515X349 BATCH: 350464 DATE MFG: 04/14
CURING SOLUTION: 910X533 BATCH: 205163 DATE MFG: 02/14

Lot #: 398296 Customer: ASC Canada

Date Shipped: Shipping Order #: SO256838 P. O. #: TC47490

IN COMPLIANCE WITH CHEMICAL REGISTRATION LAWS OF

| TABLE / ITEM | | REQUIREMENT | RESULT |
|--------------|--|---|--------------|
| II.1 | Condition In Container Sec. 8.2.1 | All components shall be homogeneous, free of skins, gels, livering, undispersed pigments, and foreign contaminants. | Conforms |
| II.3 | Non-volatile Content ASTM D2369 | Base: $60.9 \pm 2.0\%$ | 62.37 |
| II.4 | Amine Content D6-84113 | Curing Solution: $5.8 \pm 0.5\%$ | 5.8 |
| II.5 | Weight Per Gallon ASTM D 1475 | Base: 10.8 ± 0.2 lb/gal. | 10.84 |
| | | Curing Solution: 7.0 ± 0.2 lb/gal. | 7.0 |
| III.3a | Adhesion, Dry Sec. 8.2.5.1 | Fresh Mix: No loss of adhesion. A minimum rating of 7 in accordance with BSS 7225. | Conforms, 10 |
| | | Pot Life: No loss of adhesion. A minimum rating of 7 in accordance with BSS 7225. | Conforms, 10 |
| III.3b | Adhesion, Wet Sec. 8.2.5.2 | Fresh Mix: No blistering. A minimum rating of 7 in accordance with BSS 7225. | Conforms, 10 |
| | | Pot Life: No blistering. A minimum rating of 7 in accordance with BSS 7225. | Conforms, 10 |
| III.6 | Hydraulic Fluid Resistance Sec. 8.2.8 | Fresh Mix: No visible film deterioration. HB minimum pencil hardness. | Conforms, 4H |
| | | Pot Life: No visible film deterioration. HB minimum pencil hardness. | Conforms, 4H |

Haztrax File

Edward A. Aguirre, Sr.*

Quality Assurance
Mojave, California
AS9100 REV. C & ISO 9001:2008 Registered QMS

*Signature on File.
BMS 10-79
2/26/13, cc

Recommendations for the use of our products are based on tests we believe to be reliable. Manufacturer and seller are not responsible for results where the product is used under conditions beyond our control. Under no circumstances will PRC-DeSoto International, Inc. be liable for consequential damages to anyone in excess of the purchase price of the products.



PPG Aerospace
PRC-DeSoto

FOR 30579

18 JUN 2014

PRC-DeSoto International, Inc.
11601 United Street
Mojave, California 93501 USA
Telephone (661) 232-6401
Fax (661) 232-6888
www.ppgaerospace.com

TEST REPORT

Page 1 of 1

REFERENCE: DMS 2144E, Composition A

This is to certify that the material described herein meets or exceeds the test requirements of the referenced specification and that all tests have been performed in accordance to the specification.

BASE: 515X349 BATCH: 350464
ACTIVATOR: 910X533 BATCH: 205163

LOT #: 398296

IN COMPLIANCE WITH CHEMICAL REGISTRATION LAWS OF CAN

| ITEM | REQUIREMENT | RESULT |
|---|--|--------------|
| Condition in Container FTMS 141 Mthd. 3011.1 | The material, individual components and catalyzed, shall be easily mixed to a smooth homogenous condition free of skins, grit, lumps, or gelled particles. | Conforms |
| Spraying Properties FTMS 141 Mthd. 4331.1 | The applied film shall be free of streaks, pinholes, bubbles, and other film defects. | Conforms |
| Non-volatile Content ASTM D2369 | Mixed: $39.3 \pm 2\%$ | 41.0 |
| Weight per Gallon. ASTM D1475 | Base: 10.80 ± 0.3 lb/gal | 10.84 |
| | Catalyst: 7.00 ± 0.2 lb/gal | 7.0 |
| Fineness of Grind ASTM D1210 | 5 minimum | 5 |
| Viscosity | 14-18 seconds maximum, Zahn #2 cup | 17 seconds |
| Usable Pot Life | Shall meet requirements 13 and 14 after a minimum of 8 hours | Conforms |
| Settling | Shall show no signs of hard settling and pigment shall readily redisperse. | Conforms |
| Gloss | Maximum of 15 units. | 8.1 |
| Solvent Resistance | No softening or dissolving. | Conforms |
| Flexibility | Shall be no film failure or adhesion loss before and after aging. | Conforms |
| Adhesion | No blistering or adhesion failure. | Conforms |
| DMS 2014 Resistance | No softening below a pencil hardness of F or loss of adhesion. | Conforms, 2H |

Edward A. Aguirre, Sr.*

Quality Assurance
Mojave, California
AS9100 REV. C & ISO 9001:2008 Registered QMS

*Signature on File.
DMS 2144D,
8/6/08, vnn

Recommendations for the use of our products are based on tests we believe to be reliable. Manufacturer and seller are not responsible for results where the product is used under conditions beyond our control. Under no circumstances will PRC-DeSoto International, Inc. be liable for consequential damages to anyone in excess of the purchase price of the products.

Material Safety Data Sheet



Date of issue 29 May 2014

Version 8

1. Product and company identification

Product name : 515X349 BASE COMPONENT
Code : 515X349 BASE COMPONENT
Supplier : PPG Aerospace PRC-DeSoto
12780 San Fernando Road
Sylmar, CA 91342
Phone: 818 362 6711
Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

2. Hazards identification

Emergency overview : WARNING!
FLAMMABLE LIQUID AND VAPOR. HARMFUL IF ABSORBED THROUGH SKIN. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTION. MAY BE HARMFUL IF INHALED OR SWALLOWED. SANDING AND GRINDING DUSTS MAY BE HARMFUL IF INHALED. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.
Keep away from flames, such as a pilot light, and any object that sparks, such as an electric motor. Keep away from heat. Do not smoke. Do not breathe vapor or mist. Do not swallow. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Potential acute health effects

Inhalation : May be harmful if inhaled. Irritating to respiratory system. Can irritate eyes, nose, mouth and throat. May cause sensitization by inhalation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion : May be harmful if swallowed.
Skin : Toxic in contact with skin. Severely irritating to the skin. May cause an allergic skin reaction.
Eyes : Severely irritating to eyes. Risk of serious damage to eyes.

Over-exposure signs/symptoms

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. NTP, IARC, and OSHA have classified chromium (+6) compounds as carcinogenic. OSHA considers all Cr+6 compounds as potential occupational carcinogens capable of causing lung cancer above the recommended exposure limits.

Medical conditions aggravated by over-exposure : Pre-existing respiratory and skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

2. Hazards identification

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See toxicological information (Section 11)

3. Composition/information on ingredients

| <u>Name</u> | <u>CAS number</u> | <u>%</u> |
|---|-------------------|----------|
| crystalline silica respirable (<10 microns) | 14808-60-7 | 10 - 30 |
| n-butyl acetate | 123-86-4 | 10 - 30 |
| butanone | 78-93-3 | 10 - 30 |
| strontium chromate | 7789-06-2 | 7 - 13 |
| cyclohexanone | 108-94-1 | 5 - 10 |
| butan-1-ol | 71-36-3 | 1 - 5 |
| barium chromate | 10294-40-3 | 0.1 - 1 |
| carbon black respirable | 1333-86-4 | 0.1 - 1 |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

5. Fire-fighting measures

- Flammability of the product** : Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
halogenated compounds
metal oxide/oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Use spark-proof tools and explosion-proof equipment. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not breathe vapor or mist. Ingestion of product or cured coating may be harmful. Do not swallow. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

| Name | Result | ACGIH | OSHA | Ontario | Mexico | PPG |
|------|--------|-------|------|---------|--------|-----|
| | | | | | | |

8. Exposure controls/personal protection

| | | | | | | |
|---|------|---|---|----------------------------------|-------------------------|-------------------------|
| crystalline silica respirable (<10 microns) | TWA | 0.025 mg/m ³ R | 10 MG/M3 / (%SiO ₂ +2) R Z 250 MPPCF / (%SiO ₂ +5) R Z | 0.1 mg/m ³ R | 0.1 mg/m ³ R | Not established |
| n-butyl acetate | TWA | 150 ppm | 150 ppm | 150 ppm | 150 ppm | Not established |
| | STEL | 200 ppm | Not established | 200 ppm | 200 ppm | Not established |
| butanone | TWA | 200 ppm | 200 ppm | 200 ppm | 200 ppm | Not established |
| | STEL | 300 ppm | Not established | 300 ppm | 300 ppm | Not established |
| strontium chromate | TWA | 0.0005 mg/m ³ (measured as Cr) | 0.005 mg/m ³ (as Cr) | 0.0005 mg/m ³ (as Cr) | Not established | 0.005 mg/m ³ |
| | STEL | Not established | 1 mg/10m ³ Z C | Not established | Not established | Not established |
| cyclohexanone | TWA | 20 ppm S | 50 ppm | 20 ppm S | 50 ppm S | Not established |
| | STEL | 50 ppm S | Not established | 50 ppm S | 100 ppm S | Not established |
| butan-1-ol | TWA | 20 ppm | 100 ppm | 20 ppm | Not established | Not established |
| | STEL | Not established | Not established | Not established | 50 ppm S C | Not established |
| barium chromate | TWA | 0.01 mg/m ³ (measured as Cr) | 0.005 mg/m ³ (as Cr) | 0.01 mg/m ³ (as Cr) | 0.05 mg/m ³ | 0.005 mg/m ³ |
| | STEL | Not established | 5 mg/m ³ 1 mg/10m ³ Z C | Not established | Not established | Not established |
| carbon black respirable | TWA | 3 mg/m ³ | 3.5 mg/m ³ | 3 mg/m ³ | 3.5 mg/m ³ | Not established |
| | STEL | Not established | Not established | Not established | 7 mg/m ³ | Not established |

Key to abbreviations

A = Acceptable Maximum Peak
 ACGIH = American Conference of Governmental Industrial Hygienists.
 C = Ceiling Limit
 F = Fume
 IPEL = Internal Permissible Exposure Limit
 OSHA = Occupational Safety and Health Administration.
 R = Respirable
 Z = OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

S = Potential skin absorption
 SR = Respiratory sensitization
 SS = Skin sensitization
 STEL = Short term Exposure limit values
 TD = Total dust
 TLV = Threshold Limit Value
 TWA = Time Weighted Average

Consult local authorities for acceptable exposure limits.

8 . Exposure controls/personal protection

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Engineering measures** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- Eyes** : Chemical splash goggles.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Gloves** : nitrile, neoprene
- Respiratory** : By spraying: air-fed respirator. By other operations than spraying, in well ventilated areas, air-fed respirators could be replaced by a combination charcoal filter and particulate filter mask. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

- Physical state** : Liquid.
- Flash point** : Closed cup: -0.56°C (31°F)
- Material supports combustion.** : Yes.
- Color** : Green.
- Odor** : Not available.
- pH** : Not available.
- Boiling/condensation point** : >37.78°C (>100°F)
- Melting/freezing point** : Not available.
- Specific gravity** : 1.3
- Density (lbs / gal)** : 10.85

9 . Physical and chemical properties

| | |
|--|------------------|
| Vapor pressure | : Not available. |
| Vapor density | : Not available. |
| Evaporation rate | : Not available. |
| VOC | : 514 g/l |
| Partition coefficient: n-octanol/water | : Not available. |

10 . Stability and reactivity

| | |
|----------------------------------|---|
| Stability | : Stable under recommended storage and handling conditions (see Section 7). |
| Conditions to avoid | : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. |
| Materials to avoid | : Reactive or incompatible with the following materials: acids, oxidizing materials, strong alkalis |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Hazardous polymerization | : Under normal conditions of storage and use, hazardous polymerization will not occur. |

11 . Toxicological information

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-----------------|---------|--------------|----------|
| n-butyl acetate | LD50 Oral | Rat | 10.768 g/kg | - |
| | LD50 Dermal | Rabbit | >17600 mg/kg | - |
| | LC50 Inhalation | Rat | >21.1 mg/l | 4 hours |
| butanone | LD50 Oral | Rat | 2737 mg/kg | - |
| | LD50 Dermal | Rabbit | 6480 mg/kg | - |
| | LC50 Inhalation | Rat | 11243 ppm | 4 hours |
| | Vapor | | | |
| strontium chromate | LD50 Oral | Rat | 3118 mg/kg | - |
| cyclohexanone | LD50 Oral | Rat | 1.54 g/kg | - |
| | LD50 Dermal | Rabbit | 0.948 g/kg | - |
| | LC50 Inhalation | Rat | 8000 ppm | 4 hours |
| butan-1-ol | LD50 Oral | Rat | 0.79 g/kg | - |
| | LD50 Dermal | Rabbit | 3400 mg/kg | - |
| | LC50 Inhalation | Rat | 8000 ppm | 4 hours |
| | Vapor | | | |
| carbon black respirable | LD50 Oral | Rat | >15400 mg/kg | - |
| | LD50 Dermal | Rabbit | >3 g/kg | - |

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Defatting irritant

: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Target organs

: Contains material which causes damage to the following organs: blood, liver, spleen, brain, bone marrow.
Contains material which may cause damage to the following organs: kidneys, lungs, peripheral nervous system, upper respiratory tract, skin, bones, central nervous system (CNS), ears, eye, lens or cornea.

Carcinogenicity

Carcinogenicity : Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.

Classification

11 . Toxicological information

| Product/ingredient name | ACGIH | IARC | NTP | OSHA |
|---|-------|------|---------------------------------|------|
| crystalline silica respirable (<10 microns) | A2 | 1 | Known to be a human carcinogen. | - |
| strontium chromate | A2 | 1 | Known to be a human carcinogen. | + |
| cyclohexanone | A3 | 3 | - | - |
| barium chromate | A1 | 1 | Known to be a human carcinogen. | + |
| carbon black respirable | A3 | 2B | - | - |

Carcinogen Classification code: ACGIH: A1, A2, A3, A4, A5
IARC: 1, 2A, 2B, 3, 4
NTP: Proven, Possible
OSHA: +
Not listed or regulated as a carcinogen: -

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

| | DOT | TDG | Mexico | IMDG |
|-----------------------------|-----------------|----------------------|-----------------|----------------------|
| UN number | UN1263 | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT | PAINT |
| Transport hazard class(es) | 3 | 3 | 3 | 3 |
| Packing group | II | II | II | II |
| Environmental hazards | No. | Yes. | No. | Yes. |
| Marine pollutant substances | Not applicable. | (strontium chromate) | Not applicable. | (strontium chromate) |
| Product RQ (lbs) | 80.88 | Not applicable. | Not applicable. | Not applicable. |
| RQ substances | | | | |

| | | | | |
|-------------------------------------|---------------------------------------|---------------------------|-----------------|-----------------|
| Product code 515X349 BASE COMPONENT | | Date of issue 29 May 2014 | Version 8 | |
| Product name 515X349 BASE COMPONENT | | | | |
| 14. Transport information | | | | |
| | (strontium chromate, n-butyl acetate) | Not applicable. | Not applicable. | Not applicable. |

Additional information

- DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
- TDG : The marine pollutant mark is not required when transported by road or rail.
- Mexico : None identified.
- IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. Regulatory information

- United States inventory (TSCA 8b)** : All components are listed or exempted.
- Australia inventory (AICS)** : All components are listed or exempted.
- Canada inventory (DSL)** : All components are listed or exempted.
- China inventory (IECSC)** : All components are listed or exempted.
- Europe inventory (REACH)** : Please contact your supplier for information on the inventory status of this material.
- Japan inventory (ENCS)** : All components are listed or exempted.
- Korea inventory (KECI)** : All components are listed or exempted.
- New Zealand (NZIoC)** : Substance Use Restricted
- Philippines inventory (PICCS)** : All components are listed or exempted.

United States

SARA 302/304: No products were found.

CERCLA: Hazardous substances.: butanone: 5000 lbs. (2270 kg); butan-1-ol: 5000 lbs. (2270 kg); n-butyl acetate: 5000 lbs. (2270 kg); barium chromate: No RQ is being assigned to the generic or broad class.; strontium chromate: 10 lbs. (4.54 kg); cyclohexanone: 5000 lbs. (2270 kg);

SARA 311/312 SDS Distribution - Chemical Inventory - Hazard Identification:

| <u>Chemical name</u> | <u>CAS #</u> | <u>Acute</u> | <u>Chronic</u> | <u>Fire</u> | <u>Reactive</u> | <u>Pressure</u> |
|---|--------------|--------------|----------------|-------------|-----------------|-----------------|
| crystalline silica respirable (<10 microns) | 14808-60-7 | N | Y | N | N | N |
| n-butyl acetate | 123-86-4 | Y | N | Y | N | N |
| butanone | 78-93-3 | Y | N | Y | N | N |
| strontium chromate | 7789-06-2 | Y | Y | N | N | N |
| cyclohexanone | 108-94-1 | Y | Y | Y | N | N |
| butan-1-ol | 71-36-3 | Y | N | Y | N | N |
| barium chromate | 10294-40-3 | Y | Y | N | N | N |
| carbon black respirable | 1333-86-4 | N | Y | N | N | N |
| Product as-supplied : | | Y | Y | Y | N | N |

SARA 313

Supplier notification

| <u>Chemical name</u> | <u>CAS number</u> | <u>Concentration</u> |
|----------------------|-------------------|----------------------|
| strontium chromate | 7789-06-2 | 7 - 13 |
| butan-1-ol | 71-36-3 | 1 - 5 |
| barium chromate | 10294-40-3 | 0.1 - 1 |

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

Product code **515X349 BASE COMPONENT**

Date of issue **29 May 2014**

Version **8**

Product name **515X349 BASE COMPONENT**

15 . Regulatory information

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Canada

WHMIS (Canada) : Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). Class D-1B: Material causing immediate and serious toxic effects (Toxic). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).

Mexico

Classification

Flammability : 3 Health : 3 Reactivity : 0

16 . Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * Flammability : 3 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 3 Flammability : 3 Instability : 0

Date of previous issue : 1/7/2014.

Organization that prepared the MSDS : EHS

☒ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

Material Safety Data Sheet



Date of issue 7 January 2014
Version 6

1. Product and company identification

Product name : 910X533 ACTIVATOR COMPONENT
Code : 910X533 ACTIVATOR COMPONENT
Supplier : PPG Aerospace PRC-DeSoto
12780 San Fernando Road
Sylmar, CA 91342
Phone: 818 362 6711
Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

2. Hazards identification

Emergency overview : DANGER!
FLAMMABLE LIQUID AND VAPOR. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTION. MAY BE HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. ASPIRATION HAZARD. CAN ENTER LUNGS AND CAUSE DAMAGE. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.
Keep away from flames, such as a pilot light, and any object that sparks, such as an electric motor. Keep away from heat. Do not smoke. Do not breathe vapor or mist. Do not swallow. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Potential acute health effects

Inhalation : May be harmful if inhaled. Irritating to respiratory system. Can irritate eyes, nose, mouth and throat. May cause sensitization by inhalation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion : May be harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.
Skin : Harmful in contact with skin. Irritating to skin. May cause an allergic skin reaction.
Eyes : Severely irritating to eyes. Risk of serious damage to eyes.

Over-exposure signs/symptoms

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. **1-component mixtures:** formaldehyde is released during curing. Formaldehyde may cause irreversible effects, is irritating to the mucous membranes and may cause skin sensitization. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness.

Medical conditions aggravated by over-exposure : Pre-existing respiratory and skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200).

2. Hazards identification

See toxicological information (Section 11)

3. Composition/information on ingredients

| <u>Name</u> | <u>CAS number</u> | <u>%</u> |
|---------------------------------------|-------------------|----------|
| propan-1-ol | 71-23-8 | 30 - 60 |
| toluene | 108-88-3 | 30 - 60 |
| Proprietary silane | Proprietary | 1 - 5 |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | 1 - 5 |
| bis[(dimethylamino)methyl]phenol | 71074-89-0 | 0.1 - 1 |
| methanol | 67-56-1 | 0.1 - 1 |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

5. Fire-fighting measures

Flammability of the product : Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
metal oxide/oxides
Formaldehyde.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- | | |
|----------------------------------|--|
| Personal precautions | : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8). |
| Environmental precautions | : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| Large spill | : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Use spark-proof tools and explosion-proof equipment. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |
| Small spill | : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |

7. Handling and storage

- | | |
|-----------------|--|
| Handling | : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not breathe vapor or mist. Do not swallow. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| Storage | : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. |

8. Exposure controls/personal protection

| Name | Result | ACGIH | OSHA | Ontario | Mexico | PPG |
|-------------|--------|-----------------|-----------------|-----------------|-----------|-----------------|
| propan-1-ol | TWA | 100 ppm | 200 ppm | 100 ppm | 200 ppm S | Not established |
| | STEL | Not established | Not established | Not established | 250 ppm S | Not established |
| toluene | TWA | 20 ppm | 200 ppm Z | 20 ppm | 50 ppm S | Not established |

8. Exposure controls/personal protection

| | | | | | | |
|----------|------|-----------------|----------------------------|-----------------|-----------------|-----------------|
| | STEL | Not established | 500 ppm Z A 300 ppm Z C | Not established | Not established | Not established |
| methanol | TWA | 200 ppm S | 200 ppm | 200 ppm S | 200 ppm S | Not established |
| | STEL | 250 ppm S | Not established | 250 ppm S | 250 ppm S | Not established |

Key to abbreviations

| | | | |
|-------|---|------|------------------------------------|
| A | = Acceptable Maximum Peak | S | = Potential skin absorption |
| ACGIH | = American Conference of Governmental Industrial Hygienists. | SR | = Respiratory sensitization |
| C | = Ceiling Limit | SS | = Skin sensitization |
| F | = Fume | STEL | = Short term Exposure limit values |
| IPEL | = Internal Permissible Exposure Limit | TD | = Total dust |
| OSHA | = Occupational Safety and Health Administration. | TLV | = Threshold Limit Value |
| R | = Respirable | TWA | = Time Weighted Average |
| Z | = OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances | | |

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- Eyes** : Chemical splash goggles.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Gloves** : butyl rubber
- Respiratory** : By spraying: air-fed respirator. By other operations than spraying, in well ventilated areas, air-fed respirators could be replaced by a combination charcoal filter and particulate filter mask. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
 When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Product code **910X533 ACTIVATOR COMPONENT** Date of issue **7 January 2014** Version **6**

Product name **910X533 ACTIVATOR COMPONENT**

8 . Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state : Liquid.
Flash point : Closed cup: 7.22°C (45°F)
Material supports combustion. : Yes.
Color : Clear.
Odor : Not available.
pH : Not available.
Boiling/condensation point : 96.67 to 316.11°C (206 to 601°F)
Melting/freezing point : Not available.
Specific gravity : 0.84
Density (lbs / gal) : 7.01
Vapor pressure : Not available.
Vapor density : Not available.
Evaporation rate : Not available.
VOC : 804 g/l
Partition coefficient: n-octanol/water : Not available.

10 . Stability and reactivity

Stability : Stable under recommended storage and handling conditions (see Section 7).
Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Materials to avoid : Reactive or incompatible with the following materials: acids, oxidizing materials, strong alkalis
Hazardous decomposition products : Formaldehyde.
Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

11 . Toxicological information

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---------------------------------------|-----------------------|---------|-------------|----------|
| propan-1-ol | LD50 Oral | Rat | 1870 mg/kg | - |
| | LD50 Dermal | Rabbit | 4.049 g/kg | - |
| | LC50 Inhalation Vapor | Rat | >9800 mg/m3 | 4 hours |
| toluene | LD50 Oral | Rat | 636 mg/kg | - |
| | LD50 Dermal | Rabbit | 8.39 g/kg | - |
| | LC50 Inhalation Vapor | Rat | 49 g/m3 | 4 hours |
| Proprietary silane | LD50 Oral | Rat | 2413 mg/kg | - |
| | LD50 Oral | Rat | 1200 mg/kg | - |
| | LD50 Dermal | Rabbit | 1.28 g/kg | - |
| 2,4,6-tris(dimethylaminomethyl)phenol | LD50 Oral | Rat | 5600 mg/kg | - |
| | LD50 Dermal | Rabbit | 15800 mg/kg | - |
| | LC50 Inhalation Vapor | Rat | 64000 ppm | 4 hours |

11 . Toxicological information

| | | | | |
|--|-----------------|-----|------------|---------|
| | LC50 Inhalation | Rat | 145000 ppm | 1 hours |
|--|-----------------|-----|------------|---------|

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Defatting irritant

: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Target organs

: Contains material which causes damage to the following organs: brain.
Contains material which may cause damage to the following organs: blood, kidneys, the reproductive system, liver, heart, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Carcinogenicity**Classification**

| Product/ingredient name | ACGIH | IARC | NTP | OSHA |
|-------------------------|-------|------|-----|------|
| propan-1-ol | A4 | - | - | - |
| toluene | A4 | 3 | - | - |

Carcinogen Classification code: ACGIH: A1, A2, A3, A4, A5
IARC: 1, 2A, 2B, 3, 4
NTP: Proven, Possible
OSHA: +
Not listed or regulated as a carcinogen: -

Teratogenicity

Teratogenicity : Contains material which may cause birth defects, based on animal data.

Developmental effects : Contains material which may cause developmental abnormalities, based on animal data.

Fertility effects : Contains material which may impair female fertility, based on animal data.

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|--|---|----------|
| propan-1-ol | Acute LC50 4480000 to 4880000 ug/L Fresh water | Fish - Fathead minnow - Pimephales promelas | 96 hours |
| | Acute EC50 3644000 to 3977000 ug/L Fresh water | Daphnia - Water flea - Daphnia magna | 48 hours |
| | Acute EC50 3200000 to 5600000 ug/L Fresh water | Algae - Green algae - Selenastrum sp. | 72 hours |
| toluene | Acute LC50 5800 ug/L Fresh water | Fish - Rainbow trout, donaldson trout - Oncorhynchus mykiss | 96 hours |
| | Acute EC50 6000 ug/L Fresh water | Daphnia - Water flea - Daphnia magna | 48 hours |
| | Chronic NOEC 28000 ug/L Fresh water | Daphnia - Water flea - Daphnia magna | 48 hours |
| methanol | Acute LC50 >100000 ug/L Fresh water | Fish - Fathead minnow - Pimephales promelas | 96 hours |
| | Acute LC50 3289 to 4395 mg/L Fresh | Daphnia - Water flea - Daphnia | 48 hours |

Product code **910X533 ACTIVATOR COMPONENT** Date of issue **7 January 2014** Version **6**

Product name **910X533 ACTIVATOR COMPONENT**

12 . Ecological information

| | | | |
|--|----------------------------------|---------------------------------------|----------|
| | water | magna | |
| | Chronic NEL 320 mg/L Fresh water | Fish - Bluegill - Lepomis macrochirus | 96 hours |

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: **HANDLING AND STORAGE** and Section 8: **EXPOSURE CONTROLS/PERSONAL PROTECTION** for additional handling information and protection of employees. Section 6. **Accidental release measures**

14. Transport information

| | DOT | TDG | Mexico | IMDG |
|-----------------------------|--------------------|-----------------|-----------------|-----------------|
| UN number | UN1263 | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT | PAINT |
| Transport hazard class(es) | 3 | 3 | 3 | 3 |
| Packing group | II | II | II | II |
| Environmental hazards | No. | No. | No. | No. |
| Marine pollutant substances | Not applicable. | Not applicable. | Not applicable. | Not applicable. |
| Product RQ (lbs) | 2437.3 | Not applicable. | Not applicable. | Not applicable. |
| RQ substances | (toluene, benzene) | Not applicable. | Not applicable. | Not applicable. |

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

TDG : None identified.

Mexico : None identified.

IMDG : None identified.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. Regulatory information

United States inventory (TSCA 8b) : All components are listed or exempted.
Australia inventory (AICS) : All components are listed or exempted.
Canada inventory (DSL) : All components are listed or exempted.
China inventory (IECSC) : All components are listed or exempted.
Europe inventory (REACH) : Please contact your supplier for information on the inventory status of this material.
Japan inventory (ENCS) : All components are listed or exempted.
Korea inventory (KECI) : All components are listed or exempted.
New Zealand (NZIoC) : Substance Use Restricted
Philippines inventory (PICCS) : All components are listed or exempted.

United States

SARA 302/304: No products were found.

CERCLA: Hazardous substances.: methanol: 5000 lbs. (2270 kg); toluene: 1000 lbs. (454 kg);

SARA 311/312 SDS Distribution - Chemical Inventory - Hazard Identification:

| <u>Chemical name</u> | <u>CAS #</u> | <u>Acute</u> | <u>Chronic</u> | <u>Fire</u> | <u>Reactive</u> | <u>Pressure</u> |
|---------------------------------------|--------------|--------------|----------------|-------------|-----------------|-----------------|
| propan-1-ol | 71-23-8 | Y | N | Y | N | N |
| toluene | 108-88-3 | Y | Y | Y | N | N |
| Proprietary silane | Proprietary | Y | N | N | N | N |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | Y | N | N | N | N |
| bis[(dimethylamino)methyl]phenol | 71074-89-0 | Y | N | N | N | N |
| methanol | 67-56-1 | Y | Y | Y | N | N |
| Product as-supplied : | | Y | Y | Y | N | N |

| <u>SARA 313</u> | <u>Chemical name</u> | <u>CAS number</u> | <u>Concentration</u> |
|-----------------------|----------------------|-------------------|----------------------|
| Supplier notification | toluene | 108-88-3 | 30 - 60 |

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada

WHMIS (Canada) : Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).

Mexico

Classification

Flammability : 3 Health : 3 Reactivity : 0

16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * Flammability : 3 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Product code **910X533 ACTIVATOR COMPONENT** Date of issue **7 January 2014** Version **6**

Product name **910X533 ACTIVATOR COMPONENT**

16 . Other information

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 3 Flammability : 3 Instability : 0

Date of previous issue : 12/24/2013.

Organization that prepared : EHS
the MSDS

☒ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.